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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------|------------------|
| 10/822,004   | 04/12/2004  | Heung-sup Jeong      | 101-1028                | 1588             |
| 38209  | 7590        | 03/23/2006           | EXAMINER                |                  |
| STANZIONE & KIM, LLP<br>919 18TH STREET, N.W.<br>SUITE 440<br>WASHINGTON, DC 20006 |             |                      | GRAINGER, QUANA MASHELL |                  |
|  |             |                      | ART UNIT                | PAPER NUMBER     |
|  |             |                      | 2852                    |                  |

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/822,004

Applicant(s)

JEONG ET AL.

Examiner

Quana M. Grainger

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,14-21 and 25-28 is/are rejected.
- 7) ☒ Claim(s) 2,7-13 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first and second openings must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 1-18 and 29 are objected to because claim 1 recites that the intermediate transfer unit has a transfer belt. Claim 29 is dependent upon itself. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 19-21 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Haneda (JP10-239930A). The printer by Haneda teaches a first and second covers and a drum is installed to a first opening and a second opening through the second opening (figures 4-5). The drum is installed in a first direction (upward) and a developing unit is installed in the second direction (horizontally).

5. Claims 1, 3, and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al. (US2003/0086732). Abe et al. teaches an electrophotographic printer comprising: a main frame; a photosensitive drum unit vertically detachably installed on the main frame, and having a photosensitive drum 17 on which an electrostatic latent image is formed; and an intermediate transfer unit vertically detachably installed on the main frame, and having a transfer surface to which a toner image is transferred from the photosensitive drum, wherein the intermediate transfer unit 9 is installed above the photosensitive drum unit. The photosensitive drum unit further comprises a charger 19 to charge the photosensitive drum to a uniform potential.

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The intermediate transfer unit 9 further comprises a second cleaning device 15 to remove toner remaining on the transfer belt before the toner image is transferred to the sheet. The electrophotographic printer further comprising: a plurality of development units each having a developing roller to form the toner image by supplying toner to the electrostatic latent image, wherein the plurality of development units slide in a horizontal direction (an vertical direction) and are detachably installed on the main frame.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. in view of Hamano et al. Abe et al. teaches a duplex path and that the sheet transport is rotatably installed. Abe et al. does not teach a transfer roller in the transfer device.

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Hamano et al. teaches a transfer device having a transfer roller and wherein the transfer device moves in an out of contact with the drum (figure 5) and a waste toner storage container 232.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Hamano et al. with the image forming device of Abe et al. to reduce wear on the drum due to constant contact with the transfer device.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. and further in view of Nonami. Abe et al. does not teach an eraser device with light guide.

Nonami teaches eraser device comprising a lamp and a light guide for use within an electrophotographic printer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Nonami with the image forming device of Abe et al. to erase an image and increase image quality.

#### ***Prior Art***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Matsuo et al. teaches a transfer belt installed above a photosensitive drum.

#### ***Allowable Subject Matter***

11. Claims 2, 7-13, and 28 (claim 29 has not been considered) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 22-24 are allowed.

#### ***Response to Arguments***

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13. Applicant's arguments filed 1-10-2006 have been fully considered but they are not moot in view of the new rejection.

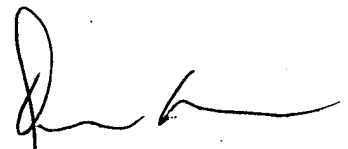
***Contact Information***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quana M. Grainger whose telephone number is 571-272-2135.

The examiner can normally be reached on 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Quana M Grainger  
Primary Examiner  
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QG